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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,397	04/14/2005	Franciscus Johannes Klosters	NL02 1018 US	6217

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NXP, B.V.
NXP INTELLECTUAL PROPERTY DEPARTMENT
M/S41-SJ
1109 MCKAY DRIVE
SAN JOSE, CA 95131

EXAMINER

FLORES, LEON

ART UNIT	PAPER NUMBER
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2611

NOTIFICATION DATE	DELIVERY MODE
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01/09/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

Office Action Summary	Application No. 10/531,397	Applicant(s) KLOSTERS ET AL.	
	Examiner Leon Flores	Art Unit 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) 2 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3 and 5-7 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims (1, 3-7) have been considered but are moot in view of the new ground(s) of rejection.

Response to Remarks

Applicant asserts that *"Sato does not teach a sync break interval that precedes the sync field interval. Sato does teach a synchronizing symbol within the data stream. Sato, Fig. 10, col. 9, lines 10-32. However, Sato does not teach a sync break interval that precedes the synchronizing symbol. Sato teaches that the sync frame is identified by moving a window bit by bit until a sync period is identified. Sato, col. 9, lines 33-62. Sato does not teach supplying the sampling clock signal based on the bit period determined by the sync break interval"*.

The examiner respectfully disagrees. One skilled in the art would know that sync break intervals are notoriously well known in the art, and they mainly placed prior to the data symbols. However, taking the contrary, a new ground of rejection has been issued.

Applicant further asserts that *"Sato does not teach the supply of the sampling clock signal is suppressed after an end of a preceding message until said condition is met"*.

The examiner respectfully disagrees. The reference of Sato does teach a system in which the sampling clock is adjusted based on the detection of synchronization patterns. The detection of these patterns is estimated in order to

sample, at the optimum sampling clock, the received symbols and finally decode the received symbols without any errors. Therefore, the reference of Sato does suggest, at least to one of ordinary skilled in the art, the teaching of the supply of the sampling clock signal is suppressed after an end of a preceding message until said condition is met.

Applicant finally asserts that *“Sato does not teach the limitation of claim 4 because Sato does not teach changes in said sync field interval have durations corresponding to the bit period specified by the sync field interval as a further condition prior to supplying the sampling clock signal at the adapted frequency specified by the sync field interval. Sato does not use a sync field interval to supply the sampling clock signal because Sato does not teach a data stream with a sync field interval. While Sato does teach a method to control the controllable oscillator, Sato does not teach changes in said sync field interval have durations corresponding to the bit period specified by the sync field interval as a further condition prior to supplying the sampling clock signal at the adapted frequency specified by the sync field interval”*.

The examiner agrees.

Claim Rejections - 35 USC § 101

Claim 7 is rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. While the claims recite a series of steps or acts to be performed, a statutory “process” under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing. The instant claims

neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process. In claim 7, applicant fails to teach what (apparatus) is implementing these steps.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. **Claims (1 & 3, 5-7) are rejected under 35 U.S.C. 103(a) as being unpatentable over Pohlmeier et al. (hereinafter Pohlmeier) (US 2002/0101884 A1) in view of Sato et al. (hereinafter Sato) (US Patent 5,596,582)**

Re claim 1, Pohlmeyer discloses a data processing apparatus, for receiving a communication signal that comprises a message containing a sync break interval with a unique bit pattern, the message containing a sync field interval identified by the sync break interval, a timing property of the sync field interval specifying a length of bit periods of the message, the apparatus comprising: an input port for receiving the communication signal (See fig. 1 & ¶ 16); a reception circuit for sampling and processing bits from the message. (See fig. 1 & ¶ 16)

But the reference of Pohlmeyer fails to explicitly teach that the clock source circuit being arranged to search for potential sync break intervals that match the unique bit pattern for a range of bit period values, the clock source circuit verifying for each potential sync break interval whether the sync field interval identified by that potential sync break interval specifies a bit period with a duration so that the sync break interval matches the unique pattern for the specified bit period,

However, Pohlmeyer does suggest (See fig. 4: 402,424 & ¶ 23-24 & 26-27) searching and verifying the validation of break/sync pair sequence by comparing the break character with the synchronization field. And if the break character is greater than the synchronization field value, bit timing information can be extracted from the synchronization character to derive the system baud-rate, and receive data counter is initialized.

Therefore, it would have been obvious to one of ordinary skills in the art to have incorporated these features into the system of Sato, in the manner as claimed and as taught by Pohlmeyer, for the benefit of deriving the system baud-rate. (See ¶ 27)

The reference of Pohlmeyer discloses the limitations as claimed above, except he fails to explicitly teach a clock source circuit for supplying a sampling clock signal to the reception circuit to define time points for said sampling, the clock source circuit being arranged to adapt a frequency of the sampling clock signal to the timing property of the sync field interval, as a condition prior to supplying the sampling clock signal at the adapted frequency specified by the sync field interval identified by the potential sync break interval.

However, the reference of Sato does suggest (See fig. 7) a clock source circuit (65) for supplying a sampling clock signal (CLK) to the reception circuit (51) to define time points for said sampling, the clock source circuit being arranged to adapt a frequency of the sampling clock signal to the timing property of the sync field interval, as a condition prior to supplying the sampling clock signal at the adapted frequency specified by the sync field interval identified by the potential sync break interval. (See col. 8, lines 41-50, 59-62, col. 9, lines 58-62.)

Therefore, taking the combined teachings of Pohlmeyer and Sato as a whole, it would have been obvious to one of ordinary skills in the art to have incorporated these features into the system of Pohlmeyer, in the manner as claimed and as taught by Sato, for the benefit of generating optimum sampling clock signals based on detecting the synchronization patterns.

The combination of Pohlmeyer and Sato discloses the limitations as claimed above, except they fail to explicitly teach that wherein supply of sampling clock signals is suppressed after an end of a preceding message until said condition is met.

However, the reference of Sato does suggest (See figs 7 & 10: 53, 55, 57, 59, 61, 63, 65 & col. 8, line 23 - col. 9, line 67) that wherein supply of sampling clock signals is suppressed after an end of a preceding message until said condition is met. ("the supply of the sampling clock signals depend on the detection of the synchronization patterns")

Therefore, it would have been obvious to one of ordinary skills in the art to have incorporated these features into the system of Pohlmeier, as modified by Sato, in the manner as claimed, for the benefit of generating optimum sampling clock signals based on detecting the synchronization patterns.

Re claim 3, the combination of Pohlmeier & Sato further teaches that wherein said unique pattern contains a repetition of a same bit value for more than a maximum number of bit periods during which the same bit value is permitted to be repeated during a remainder of the message. (In Pohlmeier, see figs 3 & 4 & ¶ 21)

Re claim 5, the combination of Pohlmeier & Sato further discloses that wherein the clock source circuit operates in parallel with the reception circuit, proceeding with said searching while said reception circuit is sampling bits from the communication signal. (In Sato, see fig. 7: 51 & 65 & col. 8, lines 23-50, 59-65)

Re claim 6, the combination of Pohlmeier & Sato further teach that wherein the clock source circuit comprises a local clock circuit for generating a local clock signal. (In

Sato, see fig. 7: 65)

But the combination of Pohlmeyer & Sato fails to explicitly teach that counter means for counting respective first numbers of periods of said local clock signal that occur in the potential sync break intervals and respective second numbers of periods of the local clock signal that characterize the timing property of the sync field intervals identified by the potential sync break intervals and a comparison circuit for comparing each time a combination of the first and a second number of a respective one of the potential sync break intervals and the sync field interval identified therewith.

However, Pohlmeyer does suggest (See fig. 4: 402,424 & ¶ 23-24 & 26-27) searching and verifying the validation of break/sync pair sequence by comparing the break character with the synchronization field. And if the break character is greater than the synchronization field value, bit timing information can be extracted from the synchronization character to derive the system baud-rate, and receive data counter is initialized.

Therefore, it would have been obvious to one of ordinary skills in the art to have incorporated these features into the system of Sato, in the manner as claimed and as taught by Pohlmeyer, for the benefit of deriving the system baud-rate. (See ¶ 27)

The combination of Pohlmeyer and Sato discloses the limitations as claimed above, except they fail to explicitly teach that the comparison circuit outputting an enabling signal to enable supplying the sampling clock signal at the adapted frequency when a ratio between the first and second number in a combination is in a predetermined range.

However, the reference of Sato does suggest (See col. 9, line 51 – col. 10, line 1) that the comparison circuit outputting an enabling signal to enable supplying the sampling clock signal at the adapted frequency when a ratio between the first and second number in a combination is in a predetermined range. (“the interval detector measures the time interval of the maxima in terms of sampling clocks as a detected count of the sampling clocks” “the frame period is known as a reference count of the sampling clocks” “it compares the measured count with the reference count”)

Therefore, it would have been obvious to one of ordinary skills in the art to have incorporated these features into the system of Pohlmeier, as modified by Sato, in the manner as claimed, for the benefit of detecting the synchronization pattern and controlling the oscillator.

Claim 7 is a method claim corresponding to system claim 1. Hence, the steps performed in method claim 7 would have necessitated the elements in system claim 1. Therefore, claim 7 has been analyzed and rejected w/r to claim 1 above.

Allowable Subject Matter

4. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEON FLORES whose telephone number is (571)270-1201. The examiner can normally be reached on Mon-Fri 7-5pm Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Payne can be reached on 571-272-3024. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/L. F./
Examiner, Art Unit 2611
January 2, 2009

/David C. Payne/
Supervisory Patent Examiner, Art Unit 2611